

REMARKS

Claims 1-12 are pending and are rejected. Claims 6 and 10 are amended. Claims 13-16 are added. Reconsideration and allowance of Claims 1-16 are respectfully requested.

Objections to Drawings

The drawings are objected to. In response thereto, Applicants submit a set of replacement (e.g., formal) drawings in compliance with 37 CFR 1.84, which are attached hereto under separate cover. No new matter is introduced.

Objections to Specification

The specification is objected to. In response thereto, Applicants amend paragraph [0065] to correct a clerical error. No new matter is introduced.

In addition, paragraph [0033] is amended to include updated status information for a referenced U.S. Patent Application.

Claim Amendments

Claim 6 is amended to correct a clerical error. The amendment of Claim 6 does not introduce new matter, and is not a narrowing amendment.

Claim Rejections under 35 USC §102

Claims 1-12 are rejected under 35 USC §102(e) as being anticipated by Welin (US Pub. No. 2006/0007871). Applicants respectfully traverses these rejections.

Claims 1-5

Applicant's Claim 1 recites:

A traffic management processor for scheduling packets for transmission across a network, comprising:

a departure time calculator for generating a departure time for each packet;

a departure time table having a plurality of rows, each having a first portion for storing the departure time for a corresponding packet and having a second portion for storing a rollover bit; and

a reset circuit coupled to the departure time calculator and to the departure time table, the reset circuit configured to reset the rollover bits from a first logic state to a second logic state at a predetermined time.

Welin fails to disclose or suggest the traffic management processor of Applicants' Claim 1.

The Office Action states that Welin discloses "a departure time table (paragraph 0294, lines 1-5) having a plurality of rows, each having a first portion for storing the departure time for a corresponding packet and having a second portion for storing a rollover bit (paragraph 0018, lines 1-7)." The portion of Welin cited by the Office Action provides:¹

A second procedure for computing the deadline provides a storage location for the time T_0 when the decoder was first ready to accept the first packet, and then continually increments that storage location with the frame size F in 10 ms units. For the i th packet, the decoder will be ready to accept that packet i at a time $T = T_0 + (i-1)F$.

Thus, Welin discloses one storage location that stores one time (T_0) that indicates when the decoder is ready to accept the first packet, and teaches that the time (T_0) stored in that one storage location is updated in 10ms increments. In contrast, the departure time table recited in Applicants' Claim 1 includes a plurality of rows for storing a plurality of departure times for a corresponding plurality of packets. Further, although Welin discusses the concept of "system timer counter rollover," as noted by the Office Action², Welin does not disclose or suggest that each of a plurality of rows of a departure time table also includes a second portion that stores a rollover bit.

Accordingly, Welin fails to disclose or suggest "a departure time table having a plurality of rows, each having a first portion for storing the departure time for a

1 Welin, paragraph [0294].

2 Welin, paragraph [0567].

corresponding packet and having a second portion for storing a rollover bit,” as recited in Applicants’ Claim 1.

To anticipate a claim under 35 USC §102, each and every element of the claim must be disclosed in a single reference³. The exclusion of a claimed element from a prior art reference is typically enough to negate anticipation under 35 USC §102. Thus, because Welin fails to disclose or suggest a traffic management processor including “a departure time table having a plurality of rows, each having a first portion for storing the departure time for a corresponding packet and having a second portion for storing a rollover bit,” as recited in Applicants’ Claim 1, Claim 1 is not anticipated by Welin. Accordingly, Applicants respectfully request the Office to withdraw the rejection of Claim 1.

Claims 2-5 depend from Claim 1 and therefore distinguish over the cited references for at least the same reasons as Claim 1.

Claims 6-9

Applicant’s Claim 6 recites:

A traffic management processor for scheduling packets for transmission across a network, comprising:

a counter for generating an arrival time for each packet;

an arithmetic logic unit having an input to receive the arrival time and configured to generate a departure time in response to the arrival time;

a reset circuit having an input to receive the arrival time and having an output for generating a reset signal; and

a table having a plurality of rows, each having a first portion for storing the departure time for a corresponding packet and having a second portion for storing a rollover bit, wherein the reset signal selectively resets the rollover bit from a first logic state to a second logic state in response to the reset signal.

As discussed above with respect to Claim 1, Welin fails to disclose or suggest “a departure time table having a plurality of rows, each having a first portion for storing

3 Corning Glass Works v. Sumitomo Electric, 9 USPQ2d 1962, 1965 (Fed. Cir. 1989).

the departure time for a corresponding packet and having a second portion for storing a rollover bit.” Accordingly, Welin fails to disclose or suggest “a table having a plurality of rows, each having a first portion for storing the departure time for a corresponding packet and having a second portion for storing a rollover bit,” as recited in Applicants’ Claim 6, and therefore Claim 6 is patentable over Welin.

Claims 7-9 depend from Claim 6 and therefore distinguish over the cited references for at least the same reasons as Claim 6.

Claims 10-12

Applicant’s Claim 10, as amended, recites:

A method for operating a packet scheduler, comprising:

determining an arrival time for each of a plurality of packets received;

calculating a departure time for each packet in response to the packet’s arrival time;

storing the departure times for the plurality of packets in a departure time table;

asserting a rollover bit corresponding to each departure time; and

de-asserting the rollover bits when the arrival time reaches a maximum value.

As discussed above with respect to Claim 1, Welin fails to disclose or suggest “a departure time table having a plurality of rows, each having a first portion for storing the departure time for a corresponding packet and having a second portion for storing a rollover bit.” Accordingly, Welin does not disclose or suggest “storing the departure times for a plurality of the packets in a departure time table,” as recited in Applicants’ Claim 10.

Further, although Welin discusses the concept of “system timer counter rollover,” as noted by the Office Action, Welin teaches the use of a single rollover value for circular buffers and circular time.⁴ Thus, Welin fails to disclose “asserting a rollover bit corresponding to each departure time,” as recited in Applicants’ Claim 10.

Accordingly, because Welin fails to disclose or suggest “storing the departure times for the plurality of packets in a departure time table,” or fails to disclose

4 See Welin, paragraphs [0610] to [0632] and [0685]; Welin’s Fig. 32.

“asserting a rollover bit corresponding to each departure time,” as recited in Applicants’ Claim 10, Claim 10 is patentable over Welin.

Claims 11-12 depend from Claim 10 and therefore distinguish over the cited references for at least the same reasons as Claim 10.

New Claims 13-16

New Claims 13-16 depend from Claim 10 and therefore distinguish over the cited references for at least the same reasons as Claim 10.

CONCLUSION

In light of the above remarks, it is believed that Claims 1-16 are in condition for allowance and, therefore, a Notice of Allowance of 1-16 is respectfully requested. If the Examiner's next action is other than allowance as requested, the Examiner is requested to call the undersigned at (408) 236-6646.

Respectfully submitted,

A handwritten signature in black ink, appearing to be 'W. L. Paradice III', with a long horizontal flourish extending to the right.

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